

CONTRIBUTION TOWARDS A MONOGRAPH OF THE OEDEMERIDAE
9. NOTES ON THE GENUS *OXACIS* LECONTE¹

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Several lots of very fine oedemerid material have been sent to me for study. This material has enabled me to understand many of the problems of speciation in the genus *Oxacis*, but much remains unknown. More collecting and field study is needed before anything in the nature of a revision can be published.³

On March 24, 1954, Dr. Howard E. Evans of Cornell University collected several larvae of a beetle at Cape Sable, Florida. One of these pupated and emerged at Ithaca, New York, June 24, 1954. It was identified by the author as *Oxacis laeta* (Waterhouse). Since that time several more specimens of this species collected in Florida, or on the Florida Keys, have come to my attention. This species represents a new addition to the Nearctic fauna. A redescription of this species, and several others that have come to my attention follows.

Oxacis laeta (Waterhouse) NEW COMBINATION

Copidita laeta Waterhouse, 1878. Trans. London Ent. Soc. 1878: 306.

Type.—British Museum (Natural History), 1 specimen

Type locality.—"St. Domingo." Hispanola.

The sharply constricted pronotum, the five pronotal impressions, and the six merging dark spots on the pronotum are the most diagnostic features of this species. It will key to *Oxacis granulata* in Arnett (1951a), from which it is readily separated by the above mentioned characteristics.

DESCRIPTION OF THE SPECIES.—Head with coarse, shallow punctures, space between punctures micro-rugose. Antennae are normal, with each segment four and one-half

¹The previous papers of which this one comprises number nine of the series were unnumbered. A complete bibliography of papers published by the author on Oedemeridae is cited in the bibliography at the end of this paper. It is the authors intention to follow this paper with a series of short papers on Oedemeridae under this general title, of which several are already in press. It is necessary to do this at this time in order to release borrowed material long held by the author.

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times as long as broad at the widest portion. Eyes are set farther apart than their width at dorsal view, slightly emarginate at the point of insertion of the antennae. Mandibles entire, blunt at the apices, short. Maxillary palpi have the apical segment triangular, widest near the middle of the segment.

Thorax sharply constricted behind the middle. Notum punctate, the punctures coarse, shallow, set apart about the same distance as the width of the punctures; area between punctures micro-rugose; five shallow impressions, one on each anterior-lateral margin, one central, one medially-anterior, and one medially-posterior. The legs are normal for the genus, claws without basal tooth.

The abdomen is normal with a finely rugose ventral surface.

Pubescence short, fine, golden, somewhat coarser on the notum and at the apical margins of the abdominal sternites.

Color piceous-brown with pale markings as follows: apical seven antennal segments, clypeus, palpi, prothorax except for six large, merging (these are variable) spots and a central longitudinal stripe, sutural margin of elytra, lateral margin of elytra except for basal one-eighth, and legs except for variable area at the apices of the femora.

Size: 10-12 mm.

Male genitalia: Normal for the genus, no specific distinguishing features.

Larvae: (See separate description by J. G. Rozen of the U. S. National Museum.)

Biology: the larvae were collected by Dr. Howard E. Evans in salt water drift wood. Adults were collected on coconut palm buds by Dr. H. F. Strohecker.

DISTRIBUTION.—This species appears to be confined to the Greater Antillian islands of Hispanola, Puerto Rico, Cuba, and the Florida Keys, and the southern part of Florida.

MATERIAL EXAMINED.—89: Florida, Cape Sable, 1, Marathon, 5, Long Key, 3, Big Pine Key, 10; Cuba, Batabanó, 3, Rangel, 1; Puerto Rico, Hatillo, 1; Haiti, Port-au-Prince, 2, Manville, 63.

Oxaxis angustata Champion

Oxaxis angustata Champion, 1890. Biol. Centr.-Amer., Col., 4(2):158.

Types.—British Museum (Natural History), 1 female, 3 males.

Type locality.—Puebla, Tehuacan, Mexico.

This is a very elongate, narrow, shiny species, close in appearance to *O. variegata* and *O. lineatula*. The moderately shiny head and thorax, and the piceous-brown color will distinguish this species. It will key to *O. laevicollis* in Arnett (1951a), but it is not close to this species.

DESCRIPTION OF THE SPECIES.—Head densely and finely punctate; antennae with segments 1 and 3 equal in length, the second segment a little over one-half as long as the third segment, antennae longer in the male than in the female. Eyes slightly emarginate near point of insertion of the antennae. Mandibles moderate, curved, subacute at apex, entire. Maxillary palpi with the apical segment cultriform, widest near the basal third.

Prothorax longer than broad, sides moderately rounded anteriorly and gradually converging behind. Notum densely and finely punctate, area between punctures micro-rugose, disc depressed in the middle before the base, and a rather large, but shallow oblique depression on each side anteriorly; base and apex feebly emarginate

at the center. Legs normal for the genus, claws entire. Elytra very elongate, sub-parallel, densely and finely rugose punctate, with three costae.

Abdomen beneath densely and finely rugose punctate.

Pubescence somewhat coarse, decumbent, yellowish, pale beneath thorax and at base of femora.

Color piceous-brown; head in front, at the base, at the sides at base, and at the sides behind, testaceous; eyes black; antennae piceous-brown; apices of mandibles black; prothorax with an indeterminate longitudinal space one either side of the notum testaceous; elytra piceous-brown, the suture lighter; sternum piceous-brown; legs piceous-brown with basal two-thirds of the femora and the coxae testaceous.

Length: 8.5-10 mm.

Male genitalia: Normal for the genus, no specific distinguishing features.

Biology: unknown.

DISTRIBUTION.—Known only from the type locality.

MATERIAL EXAMINED.—Known to me only by a male and a female from the type series.

***Oxaxis nitens*, new species**

This species is often confused with *O. laevicollis* Horn which is also shiny, but may be readily separated from that species by the predominate brown or fuscus color instead of the near piceous color of the elytra, and by the broad pale sutural area instead of the very narrow pale sutural area of *O. laevicollis*.

Holotype: Male, Arizona, Grand Canyon, mile 72, June 7, 1953 (G. D. Butler) [Deposited in the U. S. National Museum collection.]

DESCRIPTION OF THE SPECIES.—Head longer than broad, 2: 1.5 including mandibles; surface coarsely, but very sparsely punctate. Antennae with each segment four times as long as broad, second segment about one-half as long as the third segment. Eyes large, emarginate near the insertion of the antennae, set apart a distance about equal to their width when viewed dorsally. Mandibles short, acute at the apices, curved. Maxillary palpi with the apical segment cultriform, widest at basal one-fourth, sides nearly parallel from basal one-fourth to apical one-fourth.

Thorax longer than wide; surface very sparsely punctate, shiny, flat, sides uniformly converging behind widest portion, shoulders evenly rounded. Sternum smooth. Legs normal for the genus, claws not toothed at base. Elytra shiny, slightly rugose punctate, elongate.

Abdomen shiny beneath, rugose punctate.

Pubescence on head and thorax almost entirely absent; elytra and abdomen with short, fine, golden pubescence of medium density.

Color pale testaceous with elytra brown, with narrow lateral margin pale, sutural area with pale central area, narrow at base and apex, varying to entirely brown.

Length: 8-12 mm.

Male genitalia: no distinguishing specific features.

Biology: unknown.

DISTRIBUTION.—This species ranges from Arizona into the southern part of California in the low lands, canyons, and desert regions. The subspecies described below is a mountainous form.

MATERIAL EXAMINED.—53: Arizona, Riverside, 1, Tucson, 11, Sabino Canyon, Santa Catalina Mts., 4, Grand Canyon, Mile 72, 4, Hualpia Mts., 5, Wickenburg, 5; California, Waterman Canyon, Los Angeles Co., 1, Riverside Co., Indian Wells, 12, Blythe, 1, and Indio, 7, Plaster City, Imperial Co., 1.

Oxaxis nitens subspecies **knulli**, new subspecies

Holotype: Male, Pinon Flats, Santa Rosa Mts., California. (D. J. and J. N. Knull) [Deposited in the Ohio State University collection.]

This subspecies fits the description of the species except that it has a very broad pale area on the disc of the elytra. It is found in the Santa Rosa Mountains of California and presumedly is a mountainous form.

MATERIAL EXAMINED.—From type locality, 4 specimens.

Oxaxis securicula, new species

This species is probably one of the most distinctive of the genus. It resemble *Oxycopsis mimetica* in appearance, but of course lacks the bifurcate mandibles, and it has an entirely different range. The cream-colored submarginal stripe on the elytra, the reddish central stripe and lateral reddish-orange markings on the pronotum, a result of the lack of the coarse cream-colored pubescence in those areas readily defines this species. It will key to *O. subfusca* in Arnett (1951a), but it is not close to this species. It is more similar to *O. coahuila* Champ. and *O. laeta*.

Holotype.—Male, El Palmar, 16 k. west of Tetzonapa, Vera Cruz, Mexico, 600 ft. (W. Nutting and F. Werner). [Deposited in the U. S National Museum collection.]

DESCRIPTION OF THE SPECIES.—Head short, as broad as long including the mandibles. Antennae with each segment six times as long as broad, second segment one-third the length of the third. Eyes slightly emarginate at the point of insertion of the antennae, set farther apart than their width at dorsal view. Mandibles short, curved, acute at the apices. Maxillary palpi with the apical segment triangular, widest near the basal third, two times as long as broad.

Notum of the prothorax slightly longer than broad, sharply constricted behind the apical portion, shoulders acute at the apex, surface coarsely, closely punctate, surface between punctures very rugose, shining. Legs normal for the genus, claws without basal tooth. Elytra rugose punctate.

Abdomen with the ventral surface rugose punctate.

Pubescence short, fine, yellow, except for the mid-lateral region of the thorax where it is long and coarse and contributed to the pale or cream color of this region of the thorax.

Color piceous, thorax pale with reddish central stripe and lateral reddish-orange markings, elytra with pale margins and submargins, and pale sutural area; base of femora and tibiae pale, remainder black; base of antennal segments pale, rest black; pale apical area on each abdominal sternite.

Male genitalia: no distinguishing specific characteristics.

Biology: unknown, collected at light.

DISTRIBUTION.—This species is known from southern Mexico, Guatemala, Honduras, and El Salvador.

MATERIAL EXAMINED.—27: Mexico, Tamazunchale, San Luis Potosi, 1, Vera Cruz, Cordoba, 10, and El Palmar, 3; Guatemala, Panzos, 1, Palin, 2, Azutla, 1; Honduras, Zamorano, Morazan, 2; El Salvador, San Salvador, 7.

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(See footnote 1, above.)

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